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VEE IN STATE OF DURANGO, MEXICO

VEE confirmed in the east central part of the State of Durango, Mexico, from eight equine samples collected May 28, 1972, as reported by Dr. Luis Fernandez. This outbreak is approximately 645 miles from the Texas-Mexico border.

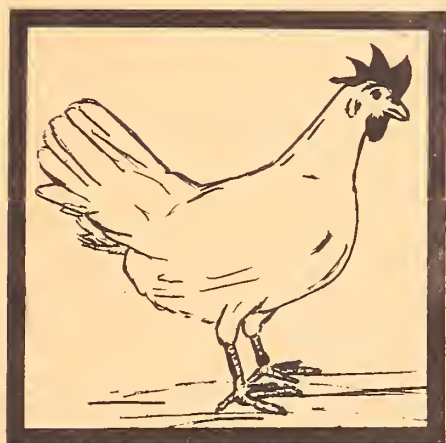
USDA RECOMMENDS VEE VACCINATION

USDA's Animal and Plant Health Inspection Service recommends that all susceptible horses (equidae) be vaccinated and emphasizes that VEE could occur any place in the United States. Vaccination for VEE is the best method of protecting horses and other equidae against this disease.



"Has your horse been vaccinated for VEE?"

EXOTIC NEWCASTLE DISEASE ACTIVITIES



Arizona ... During May a flock in Mohave County was determined to be infected with exotic Newcastle disease. This makes a total of two infected flocks found in Arizona. However, as a result of movement of birds in and out of these flocks before the disease was detected, 31 flocks have been depopulated. Less than 2,000 birds are involved. The source of infection in Arizona has not been determined.

"Have you vaccinated your flock for Newcastle disease?"

U. S. C.
NATIONAL

MAR 28 1974

EMERGENCY PROGRAMS
VETERINARY SERVICES
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
✓ UNITED STATES DEPARTMENT OF AGRICULTURE

EXOTIC NEWCASTLE DISEASE ACTIVITIES (Cont'd)

California ... As a result of traceback from a contaminated hatchery in the quarantined area, exotic Newcastle disease was diagnosed in single flocks in Tulare and Kings County. In addition to the infected flocks, three other flocks in Fresno County were depopulated because of possible exposure. More than 10,000 birds were involved. The area around the infected and exposed flocks has been quarantined, and all healthy flocks in the area have been vaccinated to establish a buffer zone.

Two counties in the quarantined area, Santa Barbara and Imperial, have remained free from exotic Newcastle disease. Consideration will be given to lift the quarantine on these counties after the second round of vaccination has been completed and if no viscerotropic velogenic Newcastle disease (VVND) appears.

As of May 31, 1972, 346 flocks made up of 3.6 million birds had been depopulated and the owners indemnified, and cleaning and disinfection had been completed on 327 of these premises.

Florida ... In late May, VVND was diagnosed in two flocks in Broward County with two additional exposed cases and was diagnosed in one flock in Dade County with movement from this flock to Walton County. The poultry population is sparse in southern Florida, and made up primarily of backyard and fighting bird flocks. Portions of the counties where the flocks are located were quarantined. Depopulation of infected flocks and investigations and vaccinations of healthy flocks are being carried out. The source of the outbreak has not been determined. An emergency headquarters has been established in the area.

REPORTED OCCURRENCES OF FOREIGN DISEASES*

Country	Date 1972	New Outbreaks	Country	Date 1972	New Outbreaks
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Foot-and-Mouth Disease

Western					
Germany	March	9	Dahomey	January	1
Spain	January	35	Kenya	January	4
France	Apr. 1-15	2	UAR	March	4
Greece	January	5	Rhodesia	January	1
Turkey	Feb. 16-29	5	Argentina	March	32
USSR	February	38	Paraguay	Nov. 1971	52
Hong Kong	February	7		Dec. 1971	2
Iran	February	15	Uruguay	Dec. 1971	3
Iraq	March	4		January	1
Lebanon	February	2		Feb.-Mar.	0
	March	3	Venezuela	January	3

Rinderpest

Lebanon	February	4		Dahomey	January	14
	March	2				

REPORTED OCCURRENCES OF FOREIGN DISEASES (Cont'd)*

Country	Date 1972	New Outbreaks	Country	Date 1972	New Outbreaks
<u>Glanders</u>			<u>Dourine</u>		
Turkey	February	9	USSR	February	4
<u>African Swine Fever</u>					
Spain	March	30	Portugal	March	25
<u>Teschen Disease</u>					
Czechoslovakia	February	9	Madagascar	January	6
<u>Contagious Bovine Pleuropneumonia</u>					
Cameroon	Oct. 1971	6	Guinea	January	11
	Nov. 1971	3		February	4
	Dec. 1971	3	Nigeria		
Dahomey	Jan. 1972	3	(Kaduna)	December 1971	22
			Senegal	Jan. 1972	1
			Chad	January	1
<u>Lumpy Skin Disease</u>					
Madagascar	January	12	Tanzania	Nov. 1971	1
<u>Sheep Pox</u>					
Portugal	February	0	Jordan	January	3
Turkey	February	144	Lebanon	February	1
USSR (Armenia)	January	0	Morocco	Mar. 1-15	13
	February	5	UAR	March	0
Iran	February	79	Senegal	January	1
Iraq	March	37	Tunisia	January	2
Israel	January	0		February	2
(territories	December 71	2			
controlled	January	0			
by)					

*Monthly Epizootic Circular #304, 1972, of the International Office of Epizootics (OIE)

VESICULAR REPORTS

The Pan American Foot-and-Mouth Disease Center has reported the following information in its Epidemiological Report Vol. 4, No. 8, dated April 16-30, 1972.

Argentina ... Three cases foot-and-mouth disease type O, 26 cases type A, and three cases type C in March 1972.

Brazil ... Eighty-four farms with FMD involving 1,099 cattle for period March 1-15.

Colombia ... Two cases foot-and-mouth disease type O, three cases type A, and no cases type C - four cases vesicular stomatitis (N.J.) - April 1-15, 1972.

Costa Rica ... Reports four cases vesicular stomatitis, two (N.J.) and two (Ind.) for the period April 16-30, 1972.

Uruguay ... Reports three cases of FMD for month of December 1971. (all type A)

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United States ... One suspect vesicular investigation made in May which was determined to be not vesicular.

ENGLAND HAS A LABORATORY CASE OF FOOT-AND-MOUTH DISEASE

Foot-and-mouth disease has been diagnosed in a pig being used in a research project at the Royal Veterinary College, Camden Town, London, N.W.1. The pig was one of six used in the project. The experiment on the pigs had been licensed by the Ministry and involved the use of imported biological material. The work is part of a project sponsored by the World Health Organization and the Food and Agriculture Organization of the United Nations. Strict security has been observed from the commencement of the work and the pigs were kept in the high security section of a germ-free unit. The Ministry has already ruled out the possibility of the infection having originated in England and is satisfied that the disease has been confined to the high security unit. There is no risk to the animal population of the country and no movement restrictions are therefore being imposed.

FOOT-AND-MOUTH DISEASE IN A MAN - PARAGUAY

A case of FMD in a university veterinary student occurred in April in the city of Asuncion. The National Service of Combat against FMD (SENALFA) diagnosed FMDV subtype A₂₄ in oral vesicular tissue. Lesions on the hands are also mentioned. SENALFA will publish the results of the research.

VEE ACTIVITIES

VEE Investigations During May 1972 ... During the month of May, investigations were conducted in 21 horse herds. This brings the total number of investigations in calendar year 1972 to 90. All of these cases have been diagnosed as negative for VEE except 11 cases which are waiting for laboratory results.

VEE Surveillance 1972 ... Approximately 3095 surveillance samples have been collected through the month of May to test for VEE antibodies.

The following is a list of animals which showed serum neutralizing antibodies to VEE:

<u>Ident. No.</u>	<u>Species</u>	<u>County, State</u>	<u>Date</u>
72-6076	dog (2)	Washington, Minnesota	4/27-72
2-BD-013	dog	Bossier, Louisiana	3/30/72 (invest.)
2-RE-006	dog	Lubbock, Texas	3/21-23/72 (invest.)
SF-12	dog	Cameron, Texas	4/24/72
72-7139	goat (27)	Cameron, Texas	report rec'd 5/8/72
72-7270	coyote	Dallas, Texas	4/11/72
2-CG-010	dog	Dallas, Alabama	4/13/72
72-7950	dog (2)	Shelby, Texas	4/25/72
72-8358	dog	Cherokee, Texas	5/10/72
HC Survey	swine (7)	Hidalgo, Texas	2/72 - 4/72

Baseline samples were collected from Ohio, New York, and Minnesota. Two dogs out of 55 in Minnesota had SN antibodies. This makes it difficult to evaluate the results of tests of dogs at this time.

The dogs from Minnesota were sampled at the University of Minnesota and had been collected from the Minnetonka, Minnesota, dog pound. No further traceback is possible. The positive dogs in Texas, Louisiana, and Alabama were also collected from dog pounds, and further traceback is not possible.

Swine Survey Results ... Blood samples were collected from slaughtered swine to test for hog cholera antibodies. The samples collected in south Texas were also tested for VEE. Out of 544 samples collected, seven swine samples had serum neutralizing antibodies against VEE. These swine were slaughtered in Hidalgo County, Texas. These samples were collected in February, March, and April of 1972.

Results Received in 1972 from Surveillance Samples Collected in September 1971 in Oklahoma ... One hundred and ten horses were tested postvaccination in an Oklahoma VEE survey in September 1971. Of these 110 horse samples, 92 had SN antibodies against VEE.

Texas A&M Mosquito Survey ... During the period of 16 April - 7 May 1972, Texas A&M performed adult mosquito surveys in the following Texas counties: Jefferson, Cameron, Hidalgo, and Webb. The averages for CDC light traps set in each county are summarized below:

County	Date Surveyed	No. of Mosquitoes/Light Trap			All Habitats
		Marshland	Riceland	Woodland	
Jefferson	29 April	3068	822	8	1395
Cameron	1-2 May	455	---	195	238
Hidalgo	2 May	---	---	70	70
Webb	3 May	---	---	727	727

Collection from Jefferson County included adults of four species which have been incriminated as vectors of VEE; those from Cameron and Hidalgo Counties included 13 VEE vector species; and those from Webb County included nine VEE vector species. All adults of mosquito species suspected as being vectors for VEE have been pooled for arbovirus testing. Results of these tests will be reported as they become available.

A total of 1216 mosquitoes collected in Cameron and Hidalgo Counties on 31 March - 1 April have been tested for arbovirus incidence. None of these mosquitoes proved positive for arbovirus activity.

REPORTED CUMULATIVE VEE VACCINATIONS
(With Commercial Vaccine Through April 1972)*

Alabama	2	Nebraska	532
Alaska	0	Nevada	1949
Arkansas	42	New York	9022
Colorado	6440	North Dakota	39
Florida	1577	Oklahoma	134
Georgia	34	Oregon	932
Hawaii	0	Pennsylvania	915
Idaho	1171	South Carolina	87
Indiana	1305	South Dakota	3
Iowa	0	Tennessee	76
Kansas	111	Texas	2974
Kentucky	237	Utah	4264
Louisiana	206	Vermont	1667
Michigan	1876	Virginia	206
Minnesota	1364	Wisconsin	3202
Montana	2	West Virginia	98
		Wisconsin	3202
		Wyoming	424
TOTAL	40,891		

* May FAD Report was in error, the date should have been March 1972, instead of April 1972.

Results Received in 1972 from Surveillance Samples Collected in September 1971 in Hancock County, Mississippi ... Of 112 horses tested, there was no evidence of VEE infection from the prevaccination samples. Of 76 horses sampled postvaccination, 67 exhibited serum neutralizing antibodies against VEE. There was no evidence of VEE infection in 17 dogs, 36 cattle, 1 turtle, 33 goats, 6 sheep, 10 opossums, 5 raccoons, 2 cats, 1 snake, 11 rats, 10 birds, 6 rabbits, 3 nutria, 1 squirrel, and 24 swine. Five of the 24 swine had titers for eastern equine encephalitis.

THE COLLECTION OF MOSQUITOES FOR VEE VIRUS ISOLATION

Introduction ... As part of the Venezuelan equine encephalitis (VEE) surveillance program, the collection of mosquitoes, with subsequent virus isolation, identification, and characterization attempts, plays a major role in determining the extent of virus activity in the vector population. Numerous instances can be anticipated in which circumstantial evidence will suggest the presence of VEE virus in an area (dead horses with CNS symptoms but without laboratory confirmation; VEE antibodies in sentinel animals other than equines; etc.). In these instances, virus isolations must be made from the vector population in order that measures for VEE suppression will be based upon absolute evidence of virus activity. For this reason, teams have been organized which are available for immediate assignment to areas for the purpose of sampling the vector populations in the vicinity of suspected VEE virus activity.

General Guidelines ... A sample consisting of approximately 10,000 mosquitoes collected in the vicinity of a suspected VEE case should be adequate to determine virus activity in the vector population. Utilizing 10 to 15 CDC-type portable light traps supplemented with CO₂ (in the form of dry ice), samples should be collected within a 2 to 5 mile radius of suspected virus activity for 1 to 3 nights. Light trap collections are retrieved early each morning, the mosquitoes sorted to species, pooled into lots of 25 to 50 mosquitoes each, packaged in dry ice, and forwarded immediately to a laboratory for virus isolation, identification, and characterization. If a sample of approximately 10,000 mosquitoes or more is collected during the first night, subsequent sampling should not be necessary. However, if the mosquito population density is low and the desired number of mosquitoes has not been collected during two or three nights of collecting under optimum conditions (no wind, absence of heavy rain, or unusually low temperatures), the collecting team should move to a new suspect area or return to its base of operations.

On-site flexibility in the placement of light traps must be exercised by collecting teams, so that maximum collections can be made in the shortest time. For example, if 3 of 10 traps collect no mosquitoes during the first night of operation, these 3 traps should be placed in new locations on subsequent trapping nights. In general, traps should be placed near swamps, the margins of woods, or dense brush near breeding areas and, if possible, should be in areas where there is high relative humidity and where they are shaded from the morning sun. The collecting teams should be familiar with the publication of Sudia and Chamberlain (1967-Collection and Processing of Medically Important Arthropods for Arbovirus Isolation-Department of Health, Education, and Welfare, Public Health Service, Center for Disease Control)

which provides additional guidance in the placement of traps and the handling of collected specimens.

If time permits, mosquito collections may also be made during the day from resting sites such as barns, culverts, tree holes, etc. Specimens so collected should be handled in the same way as light trap material. Complete reliance, however, must not be placed on mosquitoes sampled from resting sites, since important vector species may easily be missed by this technique.

Cooperating Organizations ... Numerous organizations are cooperating with the Emergency Programs, Veterinary Services, APHIS, USDA, by conducting VEE surveillance programs along the southern border of the United States (see Foreign Animal Diseases Report of May 1972). In addition to these established surveillance programs, teams are available for immediate assignment to areas for the purpose of sampling the vector populations in the vicinity of suspected VEE virus activity. Included among these special assignment teams are the following:

Dr. J. K. Olson (one team)
Department of Entomology
Texas A & M University
College Station, Texas 77841
FTS No. 713-846-1321

Mr. B. Miller (one team)
New Mexico Environmental Improvement
Agency
P.O. Box 2348
Santa Fe, New Mexico 87501
FTS No. 505-827-2693

Dr. H. C. Chapman (one team)
U.S. Department of Agriculture
Agricultural Research Service
Lake Charles, Louisiana 70601
FTS No. 318-433-0696

Lt. Col B. Eldridge (10 teams)
Department of Entomology
Walter Reed Army Institute of Research
Washington, D.C. 20012
Tel. No. 301-576-3049

VEE IN CENTRAL AMERICA

We have received a report that El Salvador and Guatemala have experienced sporadic breaks of VEE over the past few months.

El Salvador recently had a small break near the towns of Zacatecoluca and Usulután. Fourteen deaths in horses were reported. Some vaccination has been accomplished.

Guatemala's sporadic outbreaks have been occurring for the past few months generally on the Pacific coast area.

These breaks do not seem to be spreading but rather are considered endemic.

STATE VEE VACCINATION REQUIREMENTS. FOR IMPORTATION OF HORSES*

A. States requiring no permit, no vaccination, and no waiting period:

Alaska^{2/}, Arizona, Arkansas, Colorado^{1/}, Georgia^{1/}, Idaho, Illinois^{1/}, Indiana, Kentucky, Maine, Maryland, Massachusetts, Minnesota^{1/}, Mississippi^{1/}, Missouri^{1/}, Montana^{1/}, Nebraska^{1/}, Nevada^{5/}, New Hampshire, New Jersey, New Mexico, North Carolina^{1/}, North Dakota, Ohio^{1/}, Oklahoma, Rhode Island, South Carolina^{1/}, South Dakota, Tennessee^{1/}, Virginia, Washington, West Virginia, Wisconsin.

B. States requiring no permit, no vaccination, but a waiting period - days:

Alabama - 14, Delaware - 14, Iowa - 14, Kansas - 14, Michigan^{1/} - 15, New York^{6/} - 14, Utah - 14, Wyoming^{10/} - 14.

C. Requirements of remaining States:

California: Permit and vaccination required - no waiting period.
Connecticut: No permit, requires vaccination and 14-day waiting period.
Florida: Vaccination required - no permit or waiting period.
Hawaii: Vaccination^{3/} and 15-day waiting period required, no permit.
Louisiana: Permit, vaccination, and waiting period required^{4/}.
Oregon: Permit and 14-day waiting period required, no vaccination^{1/}.
Pennsylvania: Permit, vaccination^{7/}, and 14-day waiting period required.
Texas: Permit^{8/}, vaccination required, no waiting period.
Vermont: Permit required, no vaccination or waiting period^{9/}.

*March 21, 1972, questionnaire of Dr. M.D. Mitchell, State Veterinarian, S.D.

- 1/ Except where VEE or a VEE quarantine is known to exist.
- 2/ Horses shipped into Alaska via Canada must abide by Canadian regulations.
- 3/ VEE vaccination left to discretion of accredited veterinarian, EE required. Originate in areas free of EE for six months.
- 4/ Unvaccinated equidae may be moved into State from States not quarantined because of VEE but must be moved directly to a Louisiana premises under quarantine until vaccinated. Equidae originating from States or areas quarantined because of VEE shall not enter the State until at least 15 days have expired following date of vaccination.
- 5/ Equine regulations subject to change at any time due to VEE possibilities.
- 6/ Except where VEE diagnosed or any States or countries bordering. All equidae entering fairgrounds during period of State-supported agricultural exposition will be VEE vaccinated.
- 7/ Must vaccinate all horses stabled at Pennsylvania racetracks for VEE.
- 8/ For horses not vaccinated prior to entry.
- 9/ By midsummer will require VEE vaccination 14 days prior to entry.
- 10/ South Dakota only. Different rules apply for quarantined States.

THE STATE OF DESTINATION SHOULD BE CONSULTED BEFORE MOVEMENT!

Definition ... Fowl plague, or fowl pest is a foreign virus disease that attacks poultry and causes paralysis and death in 2-4 days after the first signs of sickness appear. Once chickens, turkeys, guinea fowl, and peacocks have been exposed to fowl plague, severe infection almost always occurs and death follows. Geese, ducks, pheasants, blackbirds, and sparrows are less severely affected. Fowl plague produces a relatively mild infection in other species of wild birds. Fowl plague does not affect humans.

This virus disease is very infectious and, once established, spreads rapidly. No effective vaccine has been developed, and no effective treatment is known. At this time, prevention is the only control; quarantine and slaughter, the only effective means of stopping the spread of this disease.

History ... Fowl plague was first recognized in northern Italy. Around 1880, Italian scientists described this disease and differentiated it from fowl cholera. In 1894, a severe outbreak of fowl plague occurred in northern Italy and rapidly spread to the Tyrol region, Germany, Belgium, and France, then later to Argentina and Brazil.

The first outbreak of fowl plague in the United States occurred in 1924. By the time the disease was identified and control measures put into effect, fowl plague had spread through nine States across the country. It was finally eradicated through vigorous use of quarantine and slaughter. Fowl plague again involved the United States five years later, but this time it was quickly diagnosed and confined to a single county in New Jersey. Evidence indicates that both of these outbreaks originated in the New York and New Jersey areas.

Occurrence ... Presently, fowl plague is found in parts of eastern Europe, northern Africa, Angola, Ethiopia, Formosa, Korea, and southeastern Asia. The disease also may be dormant in some of the northern and eastern Mediterranean countries that were once heavily infested. The poultry industry in the United States has been free of this disease since 1929. Yet, the increasing amount of travel from areas where the disease now occurs is increasing the hazard of its introduction by man on his clothing, baggage, and other articles.

Signs ... In chickens and turkeys, the course of fowl plague is rapid. The disease develops 3-7 days after the virus is introduced into the flock. Death normally follows within 2-4 days. Some birds die without becoming noticeably ill. Within an infected flock, however, the following signs of fowl plague usually can be observed: Depression and droopiness, ruffled feathers, loss of appetite, sudden drop in egg production, loss of coordination in walking and standing, blue discoloration of comb and wattles, swelling of head, eyelids, comb and wattles, diarrhea, blood-tinged discharge from the nostrils and circling, followed by paralysis, in birds that survive for 2 days.

The external signs of fowl plague are very similar to those of other avian diseases. Most often, fowl plague is mistaken for Newcastle disease and fowl cholera. Fowl plague, however, has some differentiating signs. Typical of

this disease is the swelling, bluish tinge and necrotic lesions of the comb and wattles. Unfortunately, these clinical signs do not always appear.

The disease can only be identified with certainty through clinical examination by a trained diagnostician in combination with appropriate laboratory tests.

Postmortem Diagnosis ... On removing the skin from the carcass, a clear, straw-colored fluid is often found. In addition, blood vessels are usually engorged. The classical lesion of fowl plague is the hemorrhagic condition of the lining of the proventriculus, or glandular stomach. These hemorrhages are often pin-sized but may be much larger.

Next in importance are hemorrhages in the underlying surface of the gizzard, or muscular stomach. Other organs and parts likely to show hemorrhages include subcostal region of the chest wall, sternum, heart fat, gizzard fat, and abdominal fat.

Laboratory Diagnosis ... Positive identification of the virus causing fowl plague requires laboratory testing. The inoculation of blood and tissue material into chicken embryos and young birds, and the serum neutralization and hemagglutination-inhibition tests are suitable for fowl plague diagnosis. Tissue extracts, aside from their use in hemagglutination-inhibition tests, can be utilized to sensitize chicken erythrocytes so that they will be agglutinated by sera containing fowl plague antibodies.

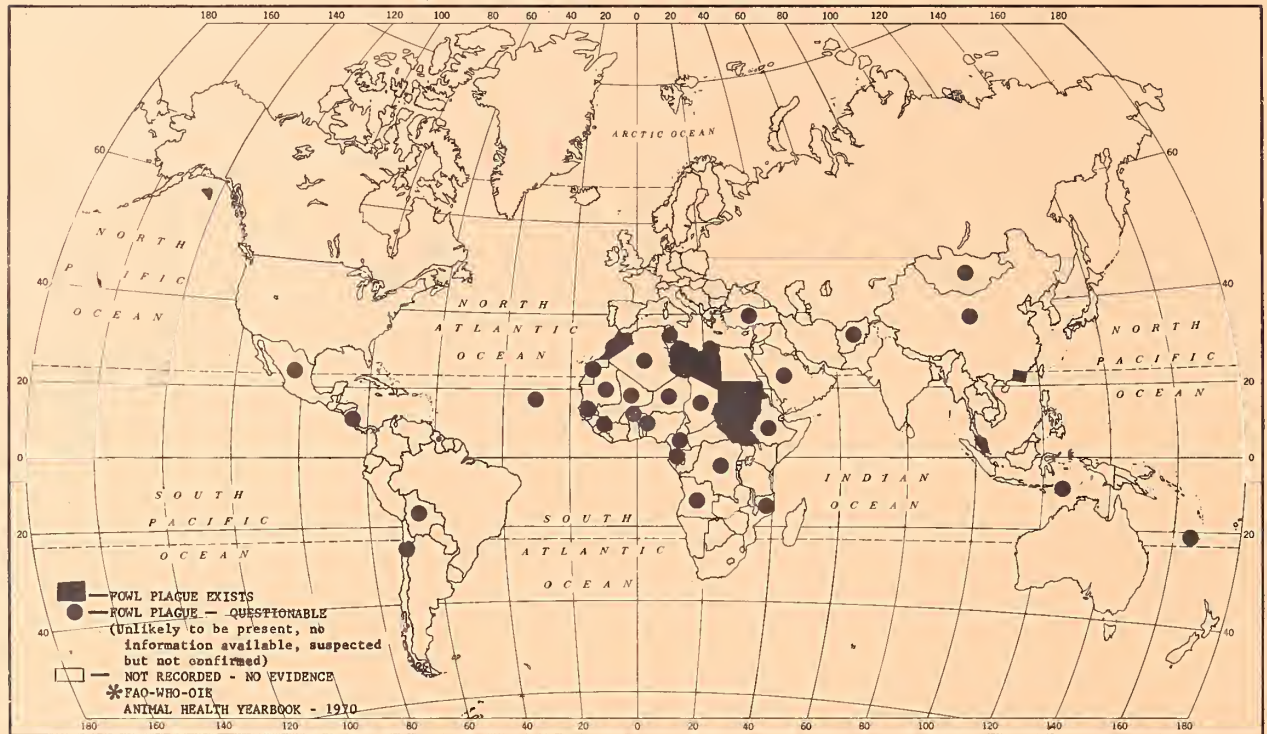
Transmission ... The disease is transmitted from infected to healthy birds by direct contact. It can also be carried to an uninfected flock on contaminated equipment. Wild birds sometimes transmit fowl plague. Scientists suspect that blood-sucking insects may also play some part in the spread of this disease.

Carcasses of birds that die of fowl plague are major reservoirs of infection. The virus can remain alive and infectious in these carcasses for long periods. The only safe way to dispose of an infected carcass is to burn it completely. In infected areas, owners of clean flocks should watch for infected birds that are introduced into a healthy flock, infected birds that are marketed during the incubation stage of the disease, infected or contaminated eggs, contaminated shipping crates that are not cleaned and disinfected before reuse, poultry workers, servicemen, and others who carry the virus on shoes, clothing or equipment, and infected carcasses not properly disposed of by complete burning.

Control ... If the disease enters the United States, eradication procedures will be started immediately. Early recognition, early reporting, and early diagnosis are important in combating fowl plague. Prompt action in alerting disease control officials will enable them to start eradication before fowl plague can gain a foothold in U.S. flocks. When a disease suspicious of fowl plague is reported, the first step will be to make a positive diagnosis. USDA veterinarians, specially trained in the diagnosis of fowl plague, are available to assist in the investigation of any suspicious case. These veterinarians will collect diseased specimens and submit them to the appropriate laboratory for necessary diagnostic tests.

If the diagnosis is positive, full scale eradication would begin at once. Congress has given the Secretary of Agriculture the authority to carry out an emergency eradication program and to pay owners for infected and exposed flocks destroyed under this program. The cooperative State-Federal program would provide for quarantines, slaughter of infected and exposed birds, and cleaning and disinfection of affected premises.

FOWL PLAGUE*



DVE FOUND IN CALIFORNIA

Duck Virus Enteritis appeared for the first time on the west coast this spring. Between April 18 and May 2, 1972, 38 muscovy ducks, one Egyptian goose, and one swan died from the disease. This outbreak occurred in a flock of about 125 mixed waterfowl which inhabit the outdoor pool at the Palace of Fine Arts in San Francisco. Migratory waterfowl, mostly mallards, had visited the pool during a brief period before and during the outbreak.

Each spring since 1967, Duck Virus Enteritis has been seen in from one to five flocks of this type on the east coast (Maryland, Pennsylvania, and New York).